EXPRESS MAIL LABEL NO. EV314044526US
DATED: 31 JANUARY 2005      **ATTORNEY DOCKET: SYNP 103**

*[round stamp: JAN 3 1 2005 PATENT & TRADEMARK OFFICE]*

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

| | |
|---|---|
| In re application of inventor(s):<br>**Lukas P.P.P. van Ginneken**<br><br>Application No. **10/828,547**<br><br>Filing Date: **19 April 2004**<br><br>Title: **Unknown** | Group Art Unit: unknown<br>Examiner: unknown<br><br><br>**CUSTOMER NO. 36454** |

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

## ENTRY IN PATENT FILE OF LITIGATION PAPERS UNDER MPEP §2207

Sir:

Attached for entry into the patent file for U.S. Patent Application No. 10/828,547, pursuant to the Manual for Patent Examining Procedure, §2207 (Eighth Edition, Revision 2, 2004), are copies of the following documents:

1. A Complaint for Patent Infringement involving the ownership of U.S. Patent No. 6,453,446 and U.S. Patent No. 6,725,438, from which the U.S. Patent Application No. 10/828,547 claims priority as a continuing application; and

2. an Answer to the Complaint and Counterclaims.

The Commissioner is hereby authorized to charge any fee determined to be due in connection with this communication, or credit any overpayment, to our Deposit Account No. 50-0869 (SYNP 103).

Respectfully submitted,

Dated: 31 Ja. 2005         _____
                                         Kenta Suzue, Reg. No. 45,145

SYNOPSYS, INC. c/o
HAYNES BEFFEL & WOLFELD LLP
P.O. Box 366
Half Moon Bay, CA 94019
(650) 712-0340 phone
(650) 712-0263 fax

1  Chris Scott Graham (State Bar No. 114498)
   Michael N. Edelman (State Bar No. 180948)
2  **DECHERT LLP**
   975 Page Mill Road
3  Palo Alto, California 94304
   Telephone: (650) 813-4800
4  Facsimile: (650) 813-4848

5  Attorneys for Plaintiff SYNOPSYS

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8  UNITED STATES DISTRICT COURT

9  NORTHERN DISTRICT OF CALIFORNIA

10  SAN JOSE DIVISION

11

12  SYNOPSYS, INC., a Delaware corporation,

13  Plaintiff,

14  vs.

15  MAGMA DESIGN AUTOMATION, a
    Delaware corporation,
16

17  Defendant.

CASE NO. **C04 03923 MEJ ADR**

COMPLAINT FOR PATENT
INFRINGEMENT

DEMAND FOR JURY TRIAL

E-filing

18

19  Plaintiff SYNOPSYS, INC. ("SYNOPSYS") hereby alleges against Defendant MAGMA

20  DESIGN AUTOMATION ("MAGMA" or "the Defendant") as follows:

21  **JURISDICTION**

22  1.  This is an action for patent infringement arising under the patent laws of the United

23  States. This Court has jurisdiction over this action under 28 U.S.C. § 1338(a).

24  **PARTIES**

25  2.  SYNOPSYS is a corporation duly organized and existing under the laws of the State

26  of Delaware, with its principal place of business in Mountain View, California.

27  ///

28  ///

1     3.     SYNOPSYS is informed and believes, and thereon alleges, that MAGMA is a

2     corporation duly organized and existing under the laws of the State of Delaware, with its principal

3     place of business in Santa Clara, California.

4                                    **VENUE**

5     4.     Venue is proper in the Northern District pursuant to 28 U.S.C. § 1391(b) & (c) and 28

6     U.S.C. § 1400(b).

7                          **INTRADISTRICT ASSIGNMENT**

8     5.     This is an Intellectual Property Action under this Court's Assignment Plan, and

9     therefore assignment to any division of the Court is proper pursuant to Civil L.R. 3-2(c).

10    SYNOPSYS believes that assignment to the San Jose division is particularly appropriate given its

11    close proximity to the principal places of business of SYNOPSYS and MAGMA.

12                            **FACTUAL BACKGROUND**

13    6.     On or about May 17, 1995, Lukas van Ginneken signed a Proprietary Information and

14    Inventions Agreement (the "Agreement") as a condition to his employment by SYNOPSYS.

15    Paragraph 3 of this Agreement provides that all rights to any inventions made, conceived, reduced to

16    practice or developed by van Ginneken while employed by SYNOPSYS are automatically assigned

17    to SYNOPSYS. A true and correct copy of the Agreement is attached hereto as Exhibit A.

18    7.     While employed by SYNOPSYS, van Ginneken made, conceived and developed

19    inventions pertaining to timing closure methodology, the use of constant delay models in logic

20    synthesis and other aspects of placement and/or synthesis. These inventions were made, conceived

21    and developed by van Ginneken during his employment for SYNOPSYS for the purpose of

22    developing SYNOPSYS' products, and therefore each of these inventions are encompassed by the

23    terms of the Agreement. By operation of law, all right, title and interest to these inventions are

24    automatically assigned to SYNOPSYS under the Agreement.

25    8.     After leaving the employment of SYNOPSYS, van Ginneken co-founded MAGMA.

26    Thereafter, MAGMA submitted patent applications to the Patent and Trademark Office that

27    disclosed inventions that van Ginneken had made, conceived and developed while at SYNOPSYS,

28    and which are owned by SYNOPSYS.

COMPLAINT FOR PATENT INFRINGEMENT

9.    On April 23, 2002, United States Patent No. 6,378,114 ("the '114 Patent"), entitled "Method for the Physical Placement of an Integrated Circuit Adaptive to Netlist Changes," was issued to SYNOPSYS. van Ginneken is a named inventor on the '114 Patent. A true and correct copy of the '114 Patent is attached to this complaint as Exhibit B and is incorporated by reference herein.

10.    On September 17, 2002, United States Patent No. 6,453,446 ("the '446 Patent"), entitled "Timing Closure Methodology," was issued to MAGMA. The '446 Patent discloses inventions which were made, conceived and developed by van Ginneken at SYNOPSYS. Pursuant to the terms of the Agreement, SYNOPSYS holds legal and equitable title to the inventions in the '446 Patent. A true and correct copy of the '446 Patent is attached to this complaint as Exhibit C and is incorporated by reference herein.

11.    On April 20, 2004, United States Patent No. 6,725,438 ("the '438 Patent"), entitled "Timing Closure Methodology," was issued to MAGMA. The '438 Patent contains inventions which were made, conceived and developed by van Ginneken at SYNOPSYS. Pursuant to the terms of the Agreement, SYNOPSYS holds legal and equitable title to the inventions in the '438 Patent. A true and correct copy of the '438 Patent is attached to this complaint as Exhibit D and is incorporated by reference herein.

12.    Since the issuance of the '114 Patent, '446 Patent, and '438 Patent (collectively referred to hereinafter as the "SYNOPSYS PATENTS"), MAGMA has engaged in a wide range of activities to infringe those patents. MAGMA has been involved in making, using, selling, distributing, advertising, marketing and creating source code for products that infringe the SYNOPSYS PATENTS.

<div align="center">

**FIRST CAUSE OF ACTION**
**(PATENT INFRINGEMENT)**

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13.    SYNOPSYS is the owner of the SYNOPSYS PATENTS because, among other reasons, the inventions disclosed in the patents were previously assigned to SYNOPSYS by van Ginneken pursuant to the terms of the Agreement.

///

14. MAGMA has been and still is infringing the SYNOPSYS PATENTS in violation of the federal patent laws by making, using, selling, distributing, advertising, marketing and creating source code for products which infringe the SYNOPSYS PATENTS. MAGMA will continue to so infringe unless enjoined by this Court.

15. MAGMA has actively induced infringement of, or contributed to the infringement of, the SYNOPSYS PATENTS under the federal patent laws by, among other things, making infringing products and creating source code for infringing products and then selling, distributing, advertising and marketing those infringing products to others, and will continue to do so unless enjoined by this Court.

16. MAGMA's infringement of the SYNOPSYS PATENTS in violation of the federal patent laws has been willful and deliberate, and has caused injury to SYNOPSYS.

17. MAGMA's infringement in violation of the federal patent laws will continue to injure SYNOPSYS unless enjoined by this Court.

WHEREFORE, SYNOPSYS prays for judgment against the Defendant, and requests that this Court impose the following remedies under the federal patent laws:

A. Preliminarily and permanently enjoin the Defendant from continued infringement of the SYNOPSYS PATENTS, pursuant to 35 U.S.C. § 283;

B. Order the Defendant to account to SYNOPSYS for damages sustained by SYNOPSYS as a result of the Defendant's infringement of the SYNOPSYS PATENTS, with interest, pursuant to 35 U.S.C. § 284;

C. Order the Defendant to pay SYNOPSYS a reasonable royalty to compensate for the Defendant's infringement, pursuant to 35 U.S.C. § 284;

D. Treble the damages resulting from the Defendant's willful and deliberate infringement, pursuant to 35 U.S.C. § 284;

E. Award SYNOPSYS its costs, expenses and reasonable attorneys' fees incurred in bringing and prosecuting this action, pursuant to 35 U.S.C. § 285;
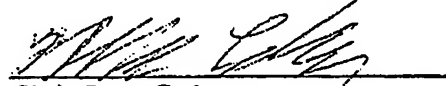
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COMPLAINT FOR PATENT INFRINGEMENT

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1    F.    Impose a constructive trust for the benefit of SYNOPSYS over any profits, revenues,

2    or other benefits obtained by the Defendant as a result of its infringement of the SYNOPSYS

3    PATENTS; and

4    G.    Award SYNOPSYS such further relief that the Court may deem just and proper

5    arising from the Defendant's infringement of the SYNOPSYS PATENTS under the federal patent

6    laws.

7    Dated: September 17, 2004                DECHERT LLP

8

9    _____
     Chris Scott Graham

10   Michael Edelman
     Attorneys for Plaintiff SYNOPSYS

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## DEMAND FOR JURY TRIAL

SYNOPSYS hereby demands trial by jury of all issues.

Dated: September 17, 2004

DECHERT LLP

Chris Scott Graham
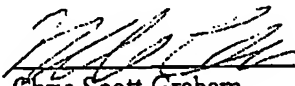Michael Edelman
Attorneys for Plaintiff SYNOPSYS

COMPLAINT FOR PATENT INFRINGEMENT

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## CERTIFICATION OF INTERESTED ENTITIES OR PERSONS

Pursuant to Civil L.R. 3-16, the undersigned certifies that as of this date, other than the named parties, there is no such interest to report.

Dated: September 17, 2004              DECHERT LLP

_____
Chris Scott Graham
Michael Edelman
Attorneys for Plaintiff SYNOPSYS

# EXHIBIT A

# PROPRIETARY INFORMATION
## AND
## INVENTIONS AGREEMENT

The following confirms an agreement between me and Synopsys, Inc. (the "Company"), which is a material part of the consideration for my employment by the Company.

1. I recognize that the Company is engaged in a continuous program of research, development and production respecting its business, present and future, including fields generally related to its business and that the Company possesses and continues to possess information that has been created, discovered, developed or otherwise become known to the Company (including, without limitation, information created, discovered or developed by, or made known to, me during the period of or arising out of my employment by the Company) and/or in which property rights have been assigned, licensed or otherwise conveyed to the Company, which information has commercial value in the business in which the Company is engaged. All of the aforementioned information is hereinafter called "Proprietary Information." By way of illustration, but not limitation, Proprietary Information includes trade secrets, processes, data and know-how, computer software, improvements, inventions, works of authorship, techniques, marketing plans, strategies, forecasts and copyrightable material and customer lists.

2. I understand that my employment creates a relationship of confidence and trust between me and the Company with respect to any information:

   (i) applicable to the business of the Company; or

   (ii) applicable to the business of any client or customer of the Company, which may be known to me by the Company or by any client or customer of the Company, or learned by me during the period of my employment.

3. In consideration of my employment by the Company and the compensation received by me from the Company from time to time, I hereby agree as follows:

   A. All Proprietary Information shall be the sole property of the Company and its assigns, and the Company and its assigns shall be sole owner of all patents, copyrights and other rights in connection therewith. I hereby assign to the Company any rights I may have or acquire in such Proprietary Information. At all times, both during my employment by the Company and after its termination, I will keep in confidence and trust all Proprietary Information, and I will not use or disclose any Proprietary Information or anything relating to it without the written consent of the Company, except as may be necessary in the ordinary course of performing my duties to the Company.

   B. All documents, records, apparatus, equipment and other physical property, whether or not pertaining to Proprietary Information, furnished to me by the Company or produced by me or others in connection with my employment shall be and remain the sole property of the Company and shall be returned to the Company immediately as and when requested by the Company. Even if the Company does not so request, I shall return and deliver all such property upon termination of my employment by me or the Company for any reason and I will not take with me any such property or any reproduction of such property upon such termination.

   C. I will promptly disclose to the Company, or any persons designated by it, all improvements, inventions, works of authorship, processes, techniques, know-how, formulae,

data, ideas and other information (including, without limitation, my algorithms or software), whether or not patentable, made or conceived or reduced to practice or learned by me, either alone or jointly with others, during the term of my employment (all said improvements, inventions, works of authorship, processes, techniques, know-how, formulae, data, ideas and other information shall be hereinafter collectively called "Inventions").

D. I agree that all Inventions which I make, conceive, reduce to practice or develop (in whole or in part, either alone or jointly with others) during my employment shall be the sole property of the Company to the maximum extent permitted by Section 2870 of the California Labor Code (hereinafter called "Section 2870"), a copy of which is attached hereto as Exhibit B, and to the extent permitted by law, shall be "works made for hire." The Company shall be the sole owner of all patents, copyrights, trade secret rights, rights with respect to other intellectual property or other rights in connection therewith (including, without limitation, such rights in algorithms or software). I hereby assign to the Company any rights I may have or acquire in such Inventions. I agree to perform, during and after my employment, all acts deemed necessary or desirable by the Company to permit and assist it, at the Company's expense, in obtaining, maintaining and enforcing patents, copyrights, trade secret rights, rights with respect to such Inventions and/or other Inventions I have or may at any time assign to the Company in any and all countries. Such acts may include, but are not limited to, execution of documents and assistance or cooperation in legal proceedings. I hereby irrevocably designate and appoint the Company and its duly authorized officers and agents as my agents and attorneys-in-fact to act for and on my behalf and instead of me, to execute and file any applications or related filings and to do all other lawfully permitted acts to further the prosecution, maintenance and enforcement, issuance of patents, copyrights, trade secret rights, rights with respect to mask works or other rights thereon with the same legal force and effect as if executed by me.

E. As a matter of record, I attach hereto a complete list of all inventions or improvements relevant to the subject matter of my employment by the Company which have been made by me or jointly with others prior to my employment with the Company that I desire to remove from the operation of this Agreement, and I covenant that such list is complete. If no such list is attached to this Agreement, I represent that I have no such inventions and improvements at the time of signing this Agreement.

F. During the term of my employment and for one (1) year thereafter, I will not encourage or solicit any employee of the Company to leave the Company for any reason or devote less than all of any such employee's efforts to the affairs of the Company, provided that the foregoing shall not affect any responsibility I may have as an employee if the Company with respect to the bona fide hiring and firing of Company personnel.

G. I represent that my performance of all the terms of this Agreement will not breach any agreement to keep in confidence proprietary information acquired by me in confidence or in trust prior to my employment by the Company. I have not entered into, and I agree I will not enter into, any agreement, either written or oral, in conflict herewith.

H. I represent that execution of this Agreement, my employment with the Company and my performance of my proposed duties to the Company in the development of its business will not violate any obligations I may have to my former employer.

I. This Agreement does not require assignment of an invention which an employee cannot be obligated to assign under Section 2870. However, I will disclose any Inventions as required by Section 3(c) hereof regardless of whether I believe the Invention is protected by Section 2870, in order to permit the Company to engage in a review process to determine such issues as may arise. Such disclosure shall be received in confidence by the Company.

4. This Agreement shall be effective as of the first day of my employment by the Company: _June 26 1995_ (date).

5. This Agreement shall be binding upon me, my heirs, executors, assigns and administrators and shall inure to the benefit of the Company, its successors and assigns.

Dated: 5/17/95

_[signature]_
Signature

_Lukas van Ginneken_
(Print or Type Name)

Accepted and agreed to:

Synopsys, Inc.

By _[signature]_

-3-

# EXHIBIT A

## TO

## SYNOPSYS, INC. PROPRIETARY INFORMATION AND INVENTIONS AGREEMENT

1. The following is a complete list of all inventions or improvements relevant to the subject matter of my employment by Synopsys, Inc. (the "Company") that have been made or conceived or first reduced to practice by me alone or jointly with others prior to my employment by the Company that I desire to remove from the operation of the Company's Proprietary Information and Inventions Agreement.
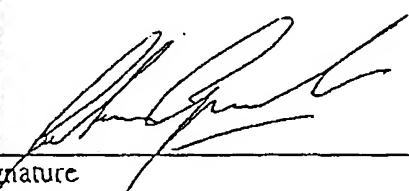
_____ No inventions or improvements

_____ See below

___X___ Additional sheerts attached

2. I propose to bring to my employment the following materials and documents of a former employer:

___X___ No materials or documents

_____ See below

_____
Signature

_Lukas van Ginneken_,
Print or Type Name

-4-

EXHIBIT B

TO

SYNOPSYS, INC. PROPRIETARY INFORMATION
AND INVENTIONS AGREEMENT

Section 2870. Application of provision providing that employee shall assign or offer to assign rights in inventions to employer.

(a) Any provision in an employment agreement which provides that an employee shall assign, or other to assign, any of his or her rights in an invention to her or her employer shall not apply to an invention that the employee entirely on his or her own time without using the employer's equipment, supplies, facilities or trade secret information except for those inventions that either:

(1) Relate at the time of conception or reduction to practice of the invention to the employer's business, or actual or demonstrably anticipated research or development by the employer;

(2) result from any work performed by the employee for the employer.

(b) To the extent a provision in an employment agreement purports to require an employee to assign an invention otherwise excluded from being required to be assigned under subdivision (a), the provision is against the public policy of this state and is unenforceable.

The following is a complete list of all inventions or improvements relevant to the subject matter of my employment by Synopsys, Inc. (the Company) that have been made or conceived or first reduced to practice by me alone or jointly with others prior to my employment by the Company that I desire to remove from the operation of the Company's Proprietary Information and Inventions Agreement.

[0] "Efficient orthonormality testing for synthesis with pass transistor selectors" by M. R. C. M. Berkelaar and -, accepted at the International Workshop on Logic Synthesis, June 1995.

[1] "Timing Verification and Optimization for the PowerPC Processor Family", by R.E. Mains, T. A. Mosher, - and R.F. Damiano, in: Proc. Int. Conf. on Computer Design, pp.390-393, Boston, Oct. 10-12, 1994.

[2] "In the driver's seat of BooleDozer" by D. Brand and R.F. Damiano, -, A. D. Drumm, in: Proc. Int. Conf. on Computer Design, pp. 518-521 Boston, Oct. 10-12, 1994.

[3] "Grammar-based optimization of synthesis scenarios" by A. Kuehlmann and -, in: Proc. Int. Conf. on Computer Design, pp. 20-25 Boston, Oct. 10-12, 1994.

[4] "Tuning of logic synthesis scenarios" by - and A. Kuehlmann, Workshop notes of the Int. Workshop on logic synthesis, paper P7c, Tahoe City, May 23-26, 1993.

[5] "Fanin ordering in multi-slot timing" by -, Proc. Int. Conf. on Computer Design, pp. 44-47, Cambridge, Oct. 11-14, 1992.

[6] "The complexity of adaptive annealing" by R. H. J. M. Otten and -, Proc. Int. Conf. on Computer Design, pp. 404-407, Cambridge, Sept. 17-19, 1990.

[7] "Buffer placement in distributed RC-tree networks for minimal Elmore delay" by -, Proc. Int. Symp. on Circuits and Systems, pp. 865-868, New Orleans, May 2-5, 1990.

[8] "Optimal slicing of plane point placements" by - and R. H. J. M. Otten, Proc. European Design Automation Conf. pp. 322-236, Glasgow, March 12-15, 1990.

[9] The annealing algorithm by R. H. J. M. Otten and -, ISBN 07923-9022-9, Boston:Kluwer, 1989.

[10] The predictor-adaptor paradigm - automation of custom layout by flexible design by -, Ph.D. thesis, ISBN 90-9002703-3, Eindhoven, 1989.

[11] "Doubly folded transistor matrix layout" by - and J. T. J. van Eijndhoven, A. H. C. M. Brouwers, Digest Int. Conf. on Computer Aided Design, Santa Clara, Nov. 7-10, 1988.

[12] "Stop criteria in simulated annealing" R. H. J. M. Otten and -, Proc.

Int. Conf. on Computer Design, pp. 549-552, Port Chester, Oct. 3-5, 1988.

[13] "An inner loop criterion for simulated annealing" by - and R.H.J.M. Otten, Physics letters A, 130:429-435, 1988.

[14] "Soft Macro Cell generation by two dimensional folding" by - and J. T. J. van Eijndhoven, P. R. M. van Teeffelen, T. J. Deckers, Proc. Int. Symp. on Circuits and Systems, pp. 727-730, Espoo, June 1988.

[15] "Gridless routing of general floor plans" by - and J. A. G. Jess, Digest Int. Conf. on Computer Aided Design, pp. 30-33, Santa Clara Nov. 9-12, 1987.

[16] "Wire planning for stackable designs", by R. K. Brayton, C. L. Chen, J. A. G. Jess, R. H. J. M. Otten and -, Proc. Int. Symp. on VLSI technology, pp. 269-273, Taipeh, May 13-15, 1987.

[17] "Global wiring for custom layout design" by - and R. H. J. M. Otten, Proc. Int. Symp. on Circuits and Systems. pp. 207-208, Kyoto, June 5-7, 1985.

[18] "Floor plan design using simulated annealing" by R. H. J. M. Otten and -, Digest Int. Conf. on Computer Aided Design, pp. 96-98, Santa Clara, Nov. 1984.

[19] "Stepwise layout refinement" by - and R. H. J. M. Otten, Proc. Int. Conf. on Computer Design, pp. 30-36, Port Chester, Oct. 8-11, 1984.

Lukas van Ginneken

# EXHIBIT B

GEORGE A. RILEY (S.B. #118304)
CHRISTOPHER D. CATALANO (S.B. #208606)
RYAN K. YAGURA (S.B. #197619)
LUANN L. SIMMONS (S.B. #203526)
O'MELVENY & MYERS LLP
Embarcadero Center West
275 Battery Street
San Francisco, California 94111-3305
Telephone: (415) 984-8700
Facsimile: (415) 984-8701

Attorneys for Defendant and Counterclaimant
MAGMA DESIGN AUTOMATION, INC.

# UNITED STATES DISTRICT COURT

# NORTHERN DISTRICT OF CALIFORNIA

# SAN FRANCISCO DIVISION

| | |
|---|---|
| SYNOPSYS, INC., a Delaware Corporation,<br><br>          Plaintiff and<br>          Counter-Defendant,<br><br>     v.<br><br>MAGMA DESIGN AUTOMATION, INC., a Delaware Corporation<br><br>          Defendant and<br>          Counterclaimant.<br><br>AND RELATED COUNTERCLAIMS. | Case No. C04-03923 MMC<br><br>**DEFENDANT MAGMA DESIGN AUTOMATION, INC.'S ANSWER TO COMPLAINT AND COUNTERCLAIMS**<br><br>**DEMAND FOR JURY TRIAL** |

Defendant Magma Design Automation, Inc. ("Magma"), by and through its attorneys, alleges on knowledge as to its own conduct and on information and belief as to all other matters, as follows:

## PRELIMINARY STATEMENT

1.    Synopsys, Inc. ("Synopsys") has sued Magma for allegedly infringing three patents relating to electronic design automation ("EDA") technology. Only one of the patents, U.S. Patent No. 6,378,114 ("the '114 Patent"), is actually

assigned to Synopsys. Magma's innovative products, however, are fundamentally different from the technology claimed in the '114 Patent. Thus, Magma does not infringe the '114 Patent.

2. Magma – not Synopsys – is the assignee and the sole and exclusive owner of the other two patents asserted here, U.S. Patents Nos. 6,453,446 ("the '446 Patent") and 6,725,438 ("the '438 Patent") (together, "the Magma Patents"). In a complaint devoid of any facts, Synopsys claims ownership of the Magma Patents based entirely on the conclusory allegation that Dr. Lukas van Ginneken created the inventions disclosed in the Magma Patents while he was employed at Synopsys.

3. The truth is far different. As detailed in the factual allegations below, Dr. van Ginneken developed the inventions disclosed in the Magma Patents after he co-founded Magma in 1997. Drawing on his superlative academic background and extensive industry experience, Dr. van Ginneken created these inventions without using proprietary or confidential information from Synopsys. Thus, Synopsys' claim of ownership to the Magma Patents is groundless.

4. Synopsys' interest in Magma's technology is a recent transformation. From its beginnings, Magma has described its novel technology to Synopsys during various meetings. Although Synopsys professed interest in Magma's talented engineering team, Synopsys repeatedly, both in public and in private, denigrated Magma's technology. Not once during these discussions did Synopsys ever assert any ownership interest in that technology.

5. During the past two years, however, Magma has become a competitive threat to Synopsys. Prompted by this change in the competitive landscape, Synopsys, which holds a dominant position in many EDA markets, has launched a campaign to discredit Magma in the eyes of Magma's customers and investors. As part of this campaign, Synopsys filed this baseless action and has tried to use it to disrupt Magma's relationships with its customers. As the facts demonstrate, however, Magma

1 does not infringe the '114 Patent, and Magma holds all rights, title, and interest in and to

2 the Magma Patents.

3      6.     Synopsys' claims will fail for an additional reason: As a matter of

4 law, Magma may not be held liable for alleged infringement of the '114 Patent or the

5 Magma Patents.

6      7.     Dr. van Ginneken's work at Synopsys that led to the development of

7 the inventions claimed in the '114 Patent was conducted as part of a project between IBM

8 and Synopsys governed by a joint development agreement. Under the terms of the

9 agreement, IBM and Synopsys share ownership of inventions resulting from the project.

10 Synopsys, however, failed to acknowledge IBM during prosecution of the '114 Patent.

11 By operation of law and pursuant to the joint development agreement, IBM is a co-owner

12 of the '114 Patent. Because all co-owners of a patent must be joined as plaintiffs in an

13 infringement action, Synopsys' failure to name IBM as a plaintiff in this suit is fatal to

14 Synopsys' claim for infringement of the '114 Patent.

15      8.     The same result would apply to the Magma Patents if – contrary to

16 the facts – Synopsys could somehow establish that the inventions in the Magma Patents

17 were conceived by Dr. van Ginneken while he was at Synopsys. All the work that Dr. van

18 Ginneken did at Synopsys in the areas of logic synthesis and physical design was part of

19 the joint project with IBM. Thus, even if Synopsys were to prevail on its ownership

20 claims, IBM would be a co-owner of the Magma Patents by operation of law and pursuant

21 to the IBM-Synopsys joint development agreement. In that case, Synopsys' failure to

22 name IBM as a plaintiff in this suit is fatal to Synopsys' claim for infringement of the

23 Magma Patents.

24      9.     Synopsys' infringement claims fail as a matter of law for another

25 reason. On March 24, 2004, Magma and IBM entered into a patent license agreement.

26 Under this license agreement, Magma is broadly licensed to all patents owned by IBM

27 that were filed before a specified date. The '114 and the Magma Patents all were filed

28 before that date. Magma is therefore licensed under the '114 Patent. Furthermore, if

Synopsys could somehow show that the inventions in the Magma Patents were conceived by Dr. van Ginneken at Synopsys, Magma is licensed under those patents as well.

10. In its counterclaims, Magma affirms its exclusive ownership of the Magma Patents. Magma further seeks declaratory judgments that Magma cannot infringe any of the three patents asserted by Synopsys.

11. Magma also seeks relief under section 17200 *et seq.* of the California Business and Professions Code to enjoin Synopsys' campaign to spread false and misleading statements about Magma and its products. Customers should have a full and fair opportunity, free from misrepresentations and manipulation, to choose the best products based on performance.

## MAGMA'S ANSWER TO SYNOPSYS' COMPLAINT

Magma, by and through its attorneys, answers the Complaint for Patent Infringement (the "Complaint") of Synopsys as follows:

12. Magma denies each and every allegation contained in paragraph 1, except that Magma admits that this Court has subject matter jurisdiction over this action.

13. Magma alleges it is without information or knowledge sufficient to form a belief as to the truth of the allegations in paragraph 2, and on that basis denies each and every allegation contained therein.

14. Magma admits the allegations contained in paragraph 3.

15. Magma denies each and every allegation contained in paragraph 4, except that Magma admits that venue is proper in the Northern District of California.

16. Magma admits the allegations in the first sentence of paragraph 5. Magma alleges that it is without information or knowledge sufficient to form a belief as to the truth of the allegations in the second sentence of paragraph 5, and on that basis denies each and every allegation contained therein.

17. Magma admits that Lukas van Ginneken signed a Proprietary Information and Inventions Agreement with Synopsys. Magma alleges that it is without information or knowledge sufficient to form a belief as to the truth of Synopsys'

allegation that the document attached as Exhibit A to the Complaint is a true and correct copy of a Proprietary Information and Inventions Agreement between Lukas van Ginneken and Synopsys, and on that basis denies that allegation. Magma denies all the remaining allegations contained in paragraph 6.

18. Magma denies each and every allegation contained in paragraph 7.

19. Magma admits the allegations contained in the first sentence of paragraph 8. Magma denies each and every allegation contained in the second sentence of paragraph 8.

20. Magma admits that Synopsys is listed as the assignee on the face of U.S. Patent No. 6,378,114 and that Lukas van Ginneken is a named inventor of this patent. Magma admits that a true and correct copy of the '114 Patent as issued by the U.S. Patent and Trademark Office is attached to the Complaint as Exhibit B. Magma alleges it is without information or knowledge sufficient to form a belief as to the truth of the remaining allegations contained in paragraph 9, and on that basis denies each and every allegation contained therein.

21. Magma denies each and every allegation contained in paragraph 10, except that Magma admits that U.S. Patent No. 6,453,446 was issued to Magma on September 17, 2002.

22. Magma denies each and every allegation contained in paragraph 11, except that Magma admits that U.S. Patent No. 6,725,438 was issued to Magma on April 20, 2004, and that a true and correct copy of the '438 Patent as issued by the U.S. Patent and Trademark Office is attached to the Complaint as Exhibit D.

23. Magma denies each and every allegation contained in paragraph 12.

## FIRST CAUSE OF ACTION
## (PATENT INFRINGEMENT)

24. Magma denies each and every allegation contained in paragraph 13.

25. Magma denies each and every allegation contained in paragraph 14.

26. Magma denies each and every allegation contained in paragraph 15.

27. Magma denies each and every allegation contained in paragraph 16.

28. Magma denies each and every allegation contained in paragraph 17.

29. In response to the prayer for relief, Magma denies each and every allegation in the prayer and, further, Magma specifically denies that Synopsys is entitled to any of the relief requested in the Complaint or any relief whatsoever, specifically denies that Synopsys is entitled to preliminary or permanent injunctive relief, specifically denies that Synopsys has been damaged by the acts of Magma in any amount whatsoever, specifically denies that Synopsys is entitled to an accounting for its alleged damages, specifically denies that Synopsys is entitled to a reasonable royalty, specifically denies that Synopsys is entitled to any award of treble, punitive, or exemplary damages, specifically denies that Synopsys is entitled to its costs, expenses or reasonable attorneys' fees, specifically denies that Synopsys is entitled to any award of interest, and specifically denies that the Court should impose a constructive trust for Synopsys' benefit.

## AFFIRMATIVE DEFENSES

### *AFFIRMATIVE DEFENSES APPLICABLE TO THE '114 PATENT*

#### FIRST AFFIRMATIVE DEFENSE

30. Magma does not infringe, or contribute to or induce the infringement of, the '114 Patent.

#### SECOND AFFIRMATIVE DEFENSE

31. Synopsys lacks standing to assert the '114 Patent for failure to join all joint owners.

#### THIRD AFFIRMATIVE DEFENSE

32. Magma cannot be liable for infringing the '114 Patent because Magma is licensed under the '114 Patent.

#### FOURTH AFFIRMATIVE DEFENSE

33. The '114 Patent is invalid because it fails to satisfy the conditions for patentability specified in Title 35 of the United States Code.

## AFFIRMATIVE DEFENSES APPLICABLE TO THE MAGMA PATENTS

### FIFTH AFFIRMATIVE DEFENSE

34. Synopsys lacks standing to assert the '446 Patent because Magma owns all right, title, and interest in and to the '446 Patent.

### SIXTH AFFIRMATIVE DEFENSE

35. In the alternative, if Magma does not exclusively own the '446 Patent, Synopsys lacks standing to assert the '446 Patent for failure to join all joint owners.

### SEVENTH AFFIRMATIVE DEFENSE

36. In the alternative, if Magma does not own the '446 Patent, Magma does not infringe, or contribute to or induce the infringement of, the '446 Patent.

### EIGHTH AFFIRMATIVE DEFENSE

37. In the alternative, if Magma does not own the '446 Patent, Magma cannot be liable for infringement of the '446 Patent because Magma is licensed under the '446 Patent.

### NINTH AFFIRMATIVE DEFENSE

38. In the alternative, if Magma does not own the '446 Patent, the '446 Patent is invalid because it fails to satisfy the conditions for patentability specified in Title 35 of the United States Code.

### TENTH AFFIRMATIVE DEFENSE

39. Synopsys lacks standing to assert the '438 Patent because Magma owns all right, title, and interest in and to the '438 Patent.

### ELEVENTH AFFIRMATIVE DEFENSE

40. In the alternative, if Magma does not exclusively own the '438 Patent, Synopsys lacks standing to assert the '438 Patent for failure to join all joint owners.

## TWELFTH AFFIRMATIVE DEFENSE

41.     In the alternative, if Magma does not own the '438 Patent, Magma does not infringe, or contribute to or induce the infringement of, the '438 Patent.

## THIRTEENTH AFFIRMATIVE DEFENSE

42.     In the alternative, if Magma does not own the '438 Patent, Magma cannot be liable for infringement of the '438 Patent because Magma is licensed under the '438 Patent.

## FOURTEENTH AFFIRMATIVE DEFENSE

43.     In the alternative, if Magma does not own the '438 Patent, the '438 Patent is invalid because it fails to satisfy the conditions for patentability specified in Title 35 of the United States Code.

## FIFTEENTH AFFIRMATIVE DEFENSE

44.     In the alternative, Synopsys' claim to ownership of the Magma Patents is barred under 35 U.S.C. § 261.

## *AFFIRMATIVE DEFENSES APPLICABLE TO ALL PATENTS-IN-SUIT*

## SIXTEENTH AFFIRMATIVE DEFENSE

45.     Synopsys' claims are barred by the doctrine of laches.

## SEVENTEENTH AFFIRMATIVE DEFENSE

46.     Synopsys' claims are barred by the doctrine of waiver.

## EIGHTEENTH AFFIRMATIVE DEFENSE

47.     Synopsys' claims are barred by the doctrine of estoppel.

## NINETEENTH AFFIRMATIVE DEFENSE

48.     Synopsys' claims are barred by applicable statutes of limitations.

## MAGMA'S COUNTERCLAIMS AGAINST SYNOPSYS

For its counterclaims against Synopsys, defendant and counterclaimant Magma alleges on knowledge as to its own conduct and on information and belief as to all other matters, as follows:

## JURISDICTION

49. This action arises under the patent laws of the United States, 35 U.S.C. § 100, *et seq.* Subject matter jurisdiction is therefore proper in this Court pursuant to 28 U.S.C. §§ 1331, 1338 and 1367(a) and pursuant to the Federal Declaratory Judgments Act, 28 U.S.C. §§ 2201-02. This Court has supplemental jurisdiction over Defendant's counterclaims arising under the state law pursuant to 28 U.S.C. § 1367(a) because these claims are so related to the parties' claims and counterclaims under federal law that they form part of the same case and/or controversy and derive from a common nucleus of operative fact.

## PARTIES

50. Magma is a corporation organized and existing under the laws of the State of Delaware and has its principal place of business in Santa Clara, California. Magma provides EDA software products and related services.

51. Synopsys is a corporation organized and existing under the laws of the State of Delaware and has its principal place of business in Mountain View, California. Synopsys provides EDA software products and related services.

## VENUE

52. Synopsys transacts business in this judicial district, including the sale and offering for sale of its products, and Synopsys has sufficient contacts with this judicial district to subject itself to the jurisdiction of this Court. Moreover, by bringing its complaint against Magma in this Court, Synopsys consented to the Court's jurisdiction. Personal jurisdiction and venue are therefore proper in this Court pursuant to 28 U.S.C. §§ 1391 and 1400(b).

## FACTS RELEVANT TO MAGMA'S COUNTERCLAIMS

## ELECTRONIC DESIGN AUTOMATION

53. EDA companies develop computer programs that are used to design, manufacture, and test integrated circuits ("ICs" or "chips"). These programs are crucial to the growth of the semiconductor industry.

54. It would be impossible to design modern ICs without advanced EDA software. Feature density, speed, efficiency, and functional capacity of ICs continue to increase at a dramatic rate. Current generation ICs hold tens of millions of transistors and have feature widths of 130 nanometers (billionths of a meter) and below. ICs such as microprocessors can execute hundreds of millions of instructions every second.

55. IC designers use EDA software to translate high level descriptions of an IC into the basic components that will be fabricated on the chip. IC designers also use EDA software to create a detailed physical layout of the chip, precisely locating within the chip's boundary each of the components and the wires that interconnect them. This physical layout is used to create the mask that is used to fabricate the circuits that make up a chip. Because a modern IC comprises millions of basic components and wires, the design process requires extraordinarily powerful EDA software to ensure that the final IC layout meets the designer's specifications.

56. The process of translating an IC design from a high level description to a physical layout is not merely a conversion of the design from one representation to another. At various stages, EDA software optimizes the design in order, for example, to improve the chip's performance, reduce the chip's size, or decrease the chip's power consumption. These optimizations are critical to the overall design process.

57. Developers of EDA software – such as Synopsys and Magma – compete with each other based on the quality of the optimizations offered by their products. In competitive "benchmarks" of EDA products, customers generally choose the software that produces the best results while requiring less time and fewer engineers.

## THE INTEGRATED CIRCUIT DESIGN PROCESS

58. The design process for an IC may be divided into two basic parts: "front-end" design tasks, referred to as "logic synthesis," and "back-end" design tasks, referred to as "physical design."

59. *Logic Synthesis.* Logic synthesis refers to the translation of high level descriptions of the functions that the IC must perform into basic logical operations.

The high level descriptions, referred to as register transfer level ("RTL") specifications, can be written directly by a design engineer or can be generated by a software program. In the logic synthesis phase, EDA software tools convert the RTL specifications into an interconnected set of logic gates. (A logic gate performs a simple logical function, such as comparing two signals and producing a result.) The tools produce a data file known as a "netlist" that describes the logic gates and their interconnections. The design must be "mapped" to an IC manufacturer's "cell library," which is made up of pre-designed groups of transistors that perform the functions of the gates. The logic synthesis stage typically includes timing analysis to determine approximately how fast the IC will run.

60. *Physical Design.* Physical design uses the mapped netlist produced by the logic synthesis phase to determine the actual physical location within the chip's area of all the transistors that make up the cells. The physical design process also will designate the actual routes of the wires that will connect the cells on the IC. Timing analysis also can be performed in the physical design phase. The result of physical design is a detailed layout that is used to fabricate the IC.

61. A fundamental problem in EDA is the separation of logic synthesis and physical design. The logic synthesis phase produces a netlist that is used to drive physical design. This netlist is the result of choices and optimizations made without complete knowledge of the physical placement and routing of cells. This can produce a final design that is significantly less than optimal. For example, a design that appears to satisfy the timing requirements for the IC during the logic synthesis phase may not satisfy those requirements once the physical design process is completed and actual electrical paths are determined. Such a result may require a repetition of the logic synthesis phase to create a new netlist. Iterating between logic synthesis and physical design in a repetitive search for a satisfactory result may consume significant time and may never produce a solution close to the optimal layout. For these reasons, integrating the steps of logic synthesis and physical design has long been a goal of EDA tool developers.

# DR. LUKAS VAN GINNEKEN

62. Lukas van Ginneken, a luminary in the EDA field, graduated cum laude in electrical engineering from Eindhoven University of Technology in the Netherlands in 1984. He received a Ph.D. degree from Eindhoven University in electrical engineering in 1989. Dr. van Ginneken's Ph.D. dissertation relates to the field of physical design, and in particular to the application of stepwise refinement to layout design. In this work, he presented automatic algorithms to solve various physical design problems. Dr. van Ginneken has authored or co-authored numerous research papers on logic synthesis and physical design, and he has been granted several patents in the EDA field.

63. From 1989 to 1995, Dr. van Ginneken worked at IBM's T.J. Watson Research Center in Yorktown Heights, New York, and at IBM's Somerset Design Center in Austin, Texas. During his tenure at IBM, Dr. van Ginneken worked on the problem of integrating logic synthesis with physical design as well as improving optimizations within logic synthesis and physical design. For example, Dr. van Ginneken co-authored the paper "Timing Verification and Optimization for the PowerPC Processor Family," published in the Proceedings of the International Conference on Computer Design in October 1994. This paper discusses a timing optimizer and describes a method for automatically deriving timing constraints.

64. While at IBM, Dr. van Ginneken also developed a fundamental algorithm for the placement of buffers in the pathways between cells. This work is presented in the article "Buffer Placement in Distributed RC-tree Networks for Minimal Elmore Delay," published in the Proceedings of the International Symposium on Circuits and Systems, May 1990, and is widely known today simply as "van Ginneken's algorithm."

65. By the time Dr. van Ginneken left IBM, his work in the area of physical design and logic synthesis included the following papers:

(a) "Efficient orthonormality testing for synthesis with pass transistor selectors," by M.R.C.M. Berkelaar and L. van Ginneken, accepted at the International Workshop on Logic Synthesis, June 1995.

(b) "In the driver's seat of BooleDozer," by D. Brand and R.F. Damiano, L. van Ginneken, A.D. Drumm, in Proc. Int. Conf. on Computer Design, pp. 518-521, Boston, Oct. 10-12, 1994.

(c) "Grammar-based optimization of synthesis scenarios," by A. Kuehlmann and L. van Ginneken, in: Proc. Int. Conf. on Computer Design, pp. 20-25, Boston, Oct. 10-12, 1994.

(d) "Tuning of logic synthesis scenarios," by L. van Ginneken and A. Kuehlmann, Workshop Notes of the Int. Workshop on logic synthesis, paper P7c, Tahoe City, May 23-26, 1993.

(e) "Fanin ordering in multi-slot timing," by L. van Ginneken, Proc. Int. Conf. on Computer Design, pp. 44-47, Cambridge, Oct. 11-14, 1992.

(f) "The complexity of adaptive annealing," by R.H.J.M. Otten and L. van Ginneken, Proc. Int. Conf. on Computer Design, pp. 404-407, Cambridge, Sept. 17-19, 1990.

(g) "Optimal slicing of plane point placements," by L. van Ginneken and R.H.J.M. Otten, Proc. European Design Automation Conf., pp. 322-336, Glasgow, March 12-15, 1990.

(h) "The annealing algorithm," by R.H.J.M. Otten and L. van Ginneken, ISBN 07923-9022-9, Boston: Kluwer, 1989.

(i) "The predictor-adaptor paradigm – automation of custom layout by flexible design," by L. van Ginneken, Ph.D. thesis, ISBN 90-9002703-3, Eindhoven, 1989.

(j) "Doubly folded transistor matrix layout," by L. van Ginneken and J.T.J. van Eijndhoven, A.H.C.M. Brouwers, Digest Int. Conf. on Computer Aided Design, Santa Clara, Nov. 7-10, 1988.

(k) "Stop criteria in simulated annealing," by R.H.J.M. Otten and L. van Ginneken, Proc. Int. Conf. on Computer Design, pp. 549-552, Port Chester, Oct. 3-5, 1988.

(l) "An inner loop criterion for simulated annealing," by L. van Ginneken and R.H.J.M. Otten, Physics letters A, 130:429-435, 1988.

(m) "Soft Macro Cell generation by two dimensional folding," by L. van Ginneken and J.T.J. van Eijndhoven, P.R.M. van Teeffelen, T.J. Deckers, Proc. Int. Symp. on Circuits and Systems, pp. 727-730, Espoo, June 1988.

(n) "Gridless routing of general floor plans," by L. van Ginneken and J.A.G. Jess, Digest Int. Conf. on Computer Aided Design, pp. 30-33, Santa Clara, Nov. 9-12, 1987.

(o) "Wire planning for stackable designs," by R.K. Brayton, C.L. Chen, J.A.G. Jess, R.H.J.M. Otten and L. van Ginneken, Proc. Int. Symp. on VLSI technology, pp. 269-273, Taipeh, May 13-15, 1987.

(p) "Global wiring for custom layout design," by L. van Ginneken and R.H.J.M. Otten, Proc. Int. Symp. on Circuits and Systems, pp. 207-208, Kyoto, June 5-7, 1985.

(q) "Floor plan design using simulated annealing," by R.H.J.M. Otten and L. van Ginneken, Digest Int. Conf. on Computer Aided Design, pp. 96-98, Santa Clara, Nov, 1984.

(r) "Stepwise layout refinement," by L. van Ginneken and R.H.J.M. Otten, Proc. Int. Conf. on Computer Design, pp. 30-36, Port Chester, Oct. 8-11, 1984.

66.     In June of 1995, Dr. van Ginneken left IBM to join Synopsys. As the foregoing list of papers reflects, when Dr. van Ginneken joined Synopsys he already possessed a high degree of knowledge, skill, and expertise in logic synthesis, physical design, and the integration of logic synthesis with physical design. At Synopsys, Dr. van Ginneken continued to work on many of the problems and techniques that were the focus of his research at IBM, including the integration of logic synthesis with physical design. Synopsys benefited not only from Dr. van Ginneken's talents, but also from the knowledge and experience he had gained at IBM.

**THE IBM-SYNOPSYS JOINT DEVELOPMENT AGREEMENT**

67.     When Dr. van Ginneken joined Synopsys in 1995, IBM and Synopsys were entering into a joint technology development agreement relating to EDA ("the IBM-Synopsys Agreement"). Under the IBM-Synopsys Agreement, any inventions

that resulted from the work performed thereunder became the joint property of Synopsys and IBM.

68.    The Synopsys engineers involved in this joint project included Dr. van Ginneken, Narendra Shenoy, Robert Damiano, Tony Ma, and Mahesh Iyer. The IBM engineers involved in this joint project included Prabhakar Kudva, Leon Stok, Tony Drumm, and Andrew Sullivan.

69.    On July 1, 1997, Synopsys filed a patent application based on this joint project. The patent application named Dr. van Ginneken and Narendra Shenoy as inventors. No IBM engineer was named on the patent application, despite the fact that one or more IBM engineers also contributed in a significant way to the subject matter of one or more of the patent claims. This application matured into the '114 Patent, issued April 23, 2002. Like the application, the issued '114 Patent names only Dr. van Ginneken and Narendra Shenoy as inventors.

## THE FOUNDING OF MAGMA

70.    Lukas van Ginneken left Synopsys and joined Magma as one of several founders in May 1997. A central goal of the new company was to create advanced EDA software that effectively integrated logic synthesis with physical design. In addition to Dr. van Ginneken, Magma's founders included:

(a)    *Rajeev Madhavan.* Before co-founding Magma and becoming its President and CEO, Mr. Madhavan already had been an entrepreneur in the EDA industry. He had founded and served as the President and CEO of Ambit Design Systems, Inc. ("Ambit"), the first credible competitor to Synopsys in logic synthesis, and had co-founded LogicVision, a BIST supplier. Mr. Madhavan also had worked at Cadence Design Systems, Inc. ("Cadence"), a leading EDA company. At Cadence, he led the invention and development of the Verilog-A product.

(b)    *Hamid Savoj.* Dr. Savoj, a renowned expert and innovator in logic optimization, joined Magma in May 1997 as Principal Engineer. Dr. Savoj holds a Ph.D. in electrical engineering and computer science (focusing on computer aided design

of VLSI) from the University of California, Berkeley. Before joining Magma, Dr. Savoj was a senior member of the consulting staff at Cadence, where he developed state-of-the-art algorithms for area and performance optimization of logic circuits. Dr. Savoj also has co-authored numerous papers relating to logic synthesis.

(c) *Karen Vahtra*. Ms. Vahtra had worked for Synopsys and Ambit before joining Magma. An expert in the application of static timing analysis, Ms. Vahtra had co-authored papers on the integration of logic synthesis and physical design before joining Magma.

71. In addition to the founders, Magma assembled a talented group of engineers known for their expertise in EDA and related fields. The engineers included:

(a) *Premal Buch*. When he joined Magma, Dr. Buch was a Ph.D. candidate in electrical engineering at the University of California, Berkeley. He had extensive research experience in logic synthesis and had worked for Cadence.

(b) *Hardy Kwok-Shing Leung*. When Hardy Leung joined Magma he was a Ph.D. candidate in computer science (focusing on VLSI computer-aided design) at the University of California, Los Angeles. He previously had worked for Cadence, where he was a senior member of its technical staff and worked on global routing, clock routing, wire-sizing, and buffer insertion. He has co-authored several papers on routing.

(c) *Hsiao-Ping Tseng*. When he joined Magma, Dr. Tseng was a Ph.D. candidate in electrical engineering at the University of Washington, Seattle, and had co-authored numerous papers in EDA-related fields.

(d) *Patrick Groeneveld*. Before joining Magma, he was an associate professor of electrical engineering at Delft University of Technology in the Netherlands and specialized in CAD for VLSI.

(e) *Joseph Hutt, Jr*. Before joining Magma, Mr. Hutt had worked for over 20 years as an electrical engineer for IBM. His responsibilities at IBM included serving as program director for VLSI Design Systems.

(f)     *Timothy Burks*.   When he joined Magma, Dr. Burks had earned a Ph.D. in electrical engineering from the University of Michigan. He had worked as an engineer for IBM.   There, he was the architect and original developer of DeLTA ("Device Level Timing Analysis"), a static transistor timing level analyzer for custom CMOS circuits.

(g)     *Hong Cai*.  Dr. Cai, holder of a Ph.D. in electrical engineering from Delft University of Technology, had worked for Synopsys as a senior member of its technical staff before joining Magma.  Dr. Cai also had authored or co-authored numerous publications relating to IC routing.

(h)     *Robert Swanson*.  When Mr. Swanson joined Magma he had almost ten years of IC design experience at IBM.  He also has been granted several semiconductor patents.

(i)     *Raymond Nijssen*.  When he joined Magma, Raymond Nijseen held an master's degree in electrical engineering from Eindhoven University.  He has been granted several IC patents.

72.     The Magma engineering team also included Michel R.C.M. Berkelaar, Manjit Borah, Cornelius A.J. van Eijk, and Eduard P. Huijbregts, all of whom hold Ph.D.'s.

73.     Magma undertook rigorous measures to ensure that its engineers did not use or disclose at Magma any trade secret or other proprietary information derived from their work at former employers.  To this end, all Magma employees, including Dr. van Ginneken, were required to execute a Proprietary Information and Inventions Agreement.  This agreement includes the following provision:

> During my employment by [Magma] I will not improperly use or disclose any confidential information or trade secrets, if any, of any former employer or any other person to whom I have an obligation of confidentiality, and I will not bring onto the premises of [Magma] any unpublished documents or any property belonging to any former employer or any other person to whom I have an obligation of confidentiality unless consented to in writing by that former employer or person.

74. Magma took further precautions, including periodically archiving all its source code. This archiving has continued to present.

75. Magma also retained outside counsel, Orrick Herrington & Sutcliffe LLP ("Orrick"), to perform intellectual property due diligence at Magma in late 1998 and early 1999. As part of this effort, Orrick engaged Dr. Marios Papaefthymiou to analyze the provenance of Magma's source code. Dr. Papaefthymiou holds a Ph.D. in Electrical Engineering and Computer Science from the Massachusetts Institute of Technology. At the time of the Magma due diligence, he was an Assistant Professor in the Department of Electrical Engineering and Computer Science at the University of Michigan.

76. As part of the due diligence, Dr. Papaefthymiou and Orrick attorneys interviewed the developers of Magma's code and confirmed that the developers had not brought any confidential information to Magma from any third party. In addition, Dr. Papaefthymiou reviewed Magma's source code and interviewed its developers to ensure that it had been developed independently at Magma without the use or incorporation of any third-party intellectual property. Based on this due diligence, Orrick concluded there was no reason to believe that Magma had used or incorporated any intellectual property of third parties.

## DEVELOPMENT OF THE MAGMA PATENTS

77. At Magma, Dr. van Ginneken conceived of the inventions disclosed and claimed in the Magma Patents. Dr. van Ginneken did not use any proprietary information or trade secrets of Synopsys in creating those inventions, consistent with Dr. van Ginneken's execution of the Proprietary Information and Inventions Agreement with Magma. Instead, the inventions were improvements and extensions of matters already in the public domain.

78. The inventions disclosed in the Magma Patents include novel applications of the concepts of "constant delay" and "logical effort." Delay refers to the time it takes for a cell to carry out its function and to communicate its result to the next cell. As the demand or "load" on a cell increases, the delay increases. Under the concept

of "constant delay," however, each cell is modeled as having a delay that does not change with changes in load. As the design of an IC proceeds through various stages, increases in a cell's load imposed by changes in the design are accommodated by increasing the cell size to provide more power so that the delay remains constant. The "logical effort" concept refers to a formulation of gate delay as a function of three factors: (a) logical effort, which does not depend on the size of the cell; (b) electrical effort (or gain); and (c) parasitic delay.

79.     The concept of constant delay has existed in the public domain since at least 1995. In particular, the concept of constant delay for use in logic synthesis is discussed in the article, "A Delay Model for Logic Synthesis of Continuously-Sized Networks," by J. Grodstein et al., from Digest Int. Conf. On Computer Aided Design, pp. 458-462, San Jose, California November 5-9, 1995 ("the Grodstein article"). The Grodstein article presents the basic concept of holding a cell's delay constant while its area is adjusted to accommodate changes in load.

80.     The concept of constant delay is also explored in a companion to the Grodstein article entitled, 'Logic Decomposition During Technology Mapping," by Eric Lehman, Yosinori Watanabe, Joel Grodstein and Heather Harkness, from Proceedings of the 1995 IEEE/ACM international conference on Computer-aided design, pp. 264-271 ("the Lehman article"). The Lehman article addresses the problem of mapping a set of logical expressions onto library cells. The Lehman article describes achieving more optimal mapping by using technology-dependent features of the library.

81.     The concept of logical effort was introduced in "Logical Effort: Designing for Speed on the Back of an Envelope," by Ivan E. Sutherland and Robert F. Sproull, from Proceedings of the 1991 University of California/Santa Cruz conference on Advanced research in VLSI, p.1-16, April 1991 ("the Sutherland article"). The Sutherland article separates logical effort, which expresses the logical complexity of the gate, from electrical effort, which expresses the gain of the gate. The Sutherland article uses the logical effort formulation to approximate a relationship among area, load, and

1    delay.

2        82.    The logical effort concept is extended in "Generalized Delay
3    Optimization of Resistive Interconnections Through an Extension of Logical Effort," by
4    Kumar Venkat, from Proceedings of ISCAS 1993, pp. 2106-2109 ("the Venkat paper").
5    The Venkat paper describes an extension of the logical effort concept that accommodates
6    the resistance of wires in addition to their capacitance.

7        83.    In creating the inventions disclosed in the Magma Patents, Dr. van
8    Ginneken drew from the extensive work available in the public domain, including the
9    publications listed above, and relied on his background and experience in EDA.    The
10   novel aspects of the inventions were conceived entirely at Magma.

11       84.    On December 24, 1997, Magma filed with the PTO the provisional
12   patent application that ultimately resulted in the Magma Patents.

13       85.    On September 17, 2002, the PTO issued the '446 Patent, entitled
14   "Timing Closure Methodology."    Dr. van Ginneken is named as the sole inventor and
15   Magma is the assignee.

16       86.    On April 26, 2004, the PTO issued the '438 Patent, entitled "Timing
17   Closure Methodology."    Dr. van Ginneken is named as the sole inventor and Magma is
18   the assignee.

19                    **SYNOPSYS' LACK OF INTEREST IN MAGMA'S TECHNOLOGY**

20       87.    Through the contributions of Dr. van Ginneken and other members of
21   its engineering staff, Magma developed the concept of fixed timing.    The fixed timing
22   methodology implements a constant delay model within an automatic tool that integrates
23   timing and placement into a single-pass design flow from RTL specifications to layout.
24   This methodology establishes and optimizes circuit speeds prior to physical design.
25   During physical design, the circuit design is refined to achieve a final timing that is very
26   close to the circuit speed previously established    Magma became the first EDA company
27   to offer this integrated approach.

28

88.     The fixed timing approach eliminates the timing iterations that exist in conventional design flows, and thus can significantly reduce the time it takes to design and produce deep submicron integrated circuits. Given the importance of time-to-market in the semiconductor industry, EDA software that accelerates the IC design process can provide a significant competitive advantage to chip designers. This technology has enabled Magma to make competitive inroads against companies such as Synopsys.

89.     That Magma's software employs a fixed timing methodology was no secret to Synopsys, because Magma repeatedly discussed the concept with Synopsys. For example, in February 1998, representatives of Synopsys met with representatives of Magma to explore the possibility of Magma being merged into or acquired by Synopsys. At the meeting, Magma informed Synopsys that it was developing a fixed timing methodology. In response, Synopsys asserted that Magma's approach would not work.

90.     Later in 1998, Synopsys and Magma representatives met again. At the meeting, Magma showed its fixed timing design methodology to Synopsys. Once again, Synopsys was not interested in Magma's technology. Instead, Synopsys' Chairman and Chief Executive Officer Aart de Geus began telling investment analysts that Magma's fixed timing technology was a failure.

91.     In the summer of 2001, Magma made a presentation about its technology at a meeting sponsored by investment bank Credit Suisse First Boston. Senior Synopsys management, including Dr. de Geus, attended. Magma's presentation featured its fixed timing methodology as central to its proprietary technology. Synopsys yet again expressed skepticism about Magma's approach: Dr. de Geus argued that fixed timing did not work.

92.     On November 20, 2001, Magma announced its initial public offering. Magma stressed the importance of its fixed timing methodology to its products: "Magma's proprietary FixedTiming® methodology and single data model architecture are the technical foundation for Magma's Blast Fusion and Blast Chip products. The FixedTiming methodology allows Magma's products to reduce the timing closure

iterations that are often required between the front-end and back-end processes in conventional integrated circuit design flows. The single data model contains all of the logical and physical information about the chip design."

## THE IBM-MAGMA PATENT LICENSE

93.    On March 24, 2004, Magma and IBM entered into a patent license agreement. Under this license agreement, Magma is broadly licensed to all patents owned by IBM that were filed before a specified date.

94.    As explained above, by operation of law and pursuant to the IBM-Synopsys Agreement, IBM is an owner of the '114 Patent. Thus, Magma is licensed to the '114 Patent pursuant to the Magma-IBM patent license agreement.

## SYNOPSYS' CLAIMS AGAINST MAGMA

95.    On July 1, 2004, Magma wrote to Synopsys, requesting that Synopsys confirm whether certain Magma patents (including the two Magma Patents at issue here) were applicable to Synopsys' gain-based delay model or any other Synopsys design solution. Over two months passed with no word from Synopsys.

96.    On September 17, 2004, Synopsys finally responded by filing this lawsuit, which alleges that Magma itself infringes the Magma Patents as well as the '114 Patent.

97.    Magma does not infringe the '114 Patent because the '114 Patent's claims are fundamentally different from the innovative technology underlying Magma's products. Among other reasons that Magma does not infringe this patent, Magma's products, unlike the requirements of every claim of the '114 Patent, do not 'establish[ ] a convergence criterion based on a partition size." Magma's single-pass approach also distinguishes its technology from the iterative approaches of the '114 Patent.

98.    Moreover, the work that led to the development of the inventions claimed in the '114 Patent was part of the joint project between IBM and Synopsys to which IBM engineers made significant contributions. By operation of law and pursuant to the IBM-Synopsys Agreement, IBM is a co-owner of the '114 Patent. Because IBM is a

co-owner of the '114 Patent, Synopsys' failure to name IBM as a plaintiff in this suit is fatal to Synopsys' claim for infringement of the '114 Patent. Magma is also licensed to the '114 Patent and therefore cannot be liable for infringement of that patent as a matter of law.

99. Synopsys also cannot assert the Magma Patents against Magma. As explained above, Dr. van Ginneken conceived of the inventions claimed in the Magma Patents at Magma, not at Synopsys. Thus, Magma – not Synopsys – owns the Magma Patents.

100. In the alternative, if Synopsys could somehow establish that Dr. van Ginneken conceived the inventions disclosed in the Magma Patents while he was at Synopsys, Magma could not be liable for infringing the patents as a matter of law. If Dr. van Ginneken developed the inventions at Synopsys, that work would have occurred as part of the joint project between IBM and Synopsys to which IBM engineers made significant contributions. Thus, by operation of law and pursuant to the IBM-Synopsys Agreement, IBM would be an owner of the Magma Patents. Accordingly, Synopsys could not assert the patents against Magma without naming IBM as a plaintiff, and Magma would be licensed under them pursuant to its patent license agreement with IBM. Thus, Magma cannot be liable for infringing the Magma Patents.

**SYNOPSYS' FALSE STATEMENTS AND UNFAIR COMPETITION**

101. Synopsys' misconduct is not limited to filing this baseless lawsuit. Synopsys is engaging in a campaign with the press and with Magma's customers and competitors to spread false and misleading statements about Magma and its products.

102. On the day it filed this lawsuit, Synopsys issued a press release stating that "After a thorough review, Synopsys has determined that it is not infringing the cited patents, and further determined Synopsys rightfully owns the two van Ginneken patents. Accordingly, Synopsys today filed suit in Federal court against Magma under the van Ginneken patents to enforce its rights as the owner of the inventions and to bar Magma from practicing Synopsys' technologies."

103.    These and other false statements by Synopsys about Magma and its technology have begun to negatively affect Magma's relationships with its customers and its reputation in the marketplace.   Synopsys has informed customers that Magma has stolen trade secrets and that Synopsys owns the technology which underlies Magma's products.   In response, Magma has had to make significant and extraordinary efforts to maintain customer relationships as a result of the uncertainty and doubt that Synopsys' statements have created in the market.   Magma has had to visit customers to correct Synopsys' false statements and persuade the customers not to take their business elsewhere despite Synopsys' false statements.

## FIRST COUNTERCLAIM FOR RELIEF

## (NON-INFRINGEMENT OF THE '114 PATENT)

104.    Magma incorporates by reference the allegations set forth in the previous paragraphs.

105.    On April 23, 2002, the PTO issued the '114 Patent, entitled "Method for the Physical Placement of an Integrated Circuit Adaptive to Netlist Changes," upon an application filed in the names of Narendra Shenoy and Lukas van Ginneken.

106.    Synopsys claims to be the owner of the '114 Patent.

107.    There exists an actual and justiciable controversy within the meaning of 28 U.S.C. §§ 2201 and 2202 between Magma and Synopsys with respect to the inventorship, ownership, validity, enforceability, and infringement of the '114 Patent and Magma's alleged liability for infringement thereof.

108.    Magma does not infringe, or contribute to or induce the infringement of, the '114 Patent.

## SECOND COUNTERCLAIM FOR RELIEF

## (INVALIDITY OF THE '114 PATENT)

109.    Magma incorporates by reference the allegations set forth in the previous paragraphs.

1  110.  On April 23, 2002, the PTO issued the '114 Patent, entitled "Method

2  for the Physical Placement of an Integrated Circuit Adaptive to Netlist Changes," upon an

3  application filed in the names of Narendra Shenoy and Lukas van Ginneken. .

4  111.  Synopsys claims to be the owner of the '114 Patent.

5  112.  There exists an actual and justiciable controversy within the meaning

6  of 28 U.S.C. §§ 2201 and 2202 between Magma and Synopsys with respect to the

7  inventorship, ownership, validity, enforceability, and infringement of the '114 Patent and

8  Magma's alleged liability for infringement thereof.

9  113.  The '114 Patent is invalid because it fails to satisfy the conditions for

10  patentability specified in Title 35 of the United States Code.

11  **THIRD COUNTERCLAIM FOR RELIEF**

12  **(IBM'S JOINT OWNERSHIP OF THE '114 PATENT)**

13  114.  Magma incorporates by reference the allegations set forth in the

14  previous paragraphs.

15  115.  On April 23, 2002, the PTO issued the '114 Patent, entitled "Method

16  for the Physical Placement of an Integrated Circuit Adaptive to Netlist Changes," upon an

17  application filed in the names of Narendra Shenoy and Lukas van Ginneken.

18  116.  Synopsys claims to be the owner of the '114 Patent.

19  117.  There exists an actual and justiciable controversy within the meaning

20  of 28 U.S.C. §§ 2201 and 2202 between Magma and Synopsys with respect to the

21  inventorship, ownership, validity, enforceability, and infringement of the '114 Patent and

22  Magma's alleged liability for infringement thereof.

23  118.  IBM is a joint owner of the '114 Patent.

24  **FOURTH COUNTERCLAIM FOR RELIEF**

25  **(NO LIABILITY FOR INFRINGEMENT**

26  **OF THE '114 PATENT DUE TO LICENSE)**

27  119.  Magma incorporates by reference the allegations set forth in the

28  previous paragraphs.

120. On April 23, 2002, the PTO issued the '114 Patent, entitled "Method for the Physical Placement of an Integrated Circuit Adaptive to Netlist Changes," upon an application filed in the names of Narendra Shenoy and Lukas van Ginneken.

121. Synopsys claims to be the owner of the '114 Patent.

122. There exists an actual and justiciable controversy within the meaning of 28 U.S.C. §§ 2201 and 2202 between Magma and Synopsys with respect to the inventorship, ownership, validity, enforceability, and infringement of the '114 Patent and Magma's alleged liability for infringement thereof.

123. Magma cannot be liable for infringing the '114 Patent because Magma is licensed under the '114 Patent.

## FIFTH COUNTERCLAIM FOR RELIEF

## (OWNERSHIP OF THE MAGMA PATENTS)

124. Magma incorporates by reference the allegations set forth in the previous paragraphs.

125. Magma holds record title to and is the legal and equitable owner of all right, title and interest in and to the '446 and '438 Patents.

126. Notwithstanding that Magma is the owner of all right, title and interest in and to the '446 and '438 Patents, in its Complaint, Synopsys claims to be the sole owner of all of the inventions claimed in the '446 Patent and the '438 Patent. Synopsys also is claiming to the public that Synopsys, rather than Magma, is the true owner of the '446 and '438 Patents.

127. There is a substantial, actual and continuing controversy between Magma and Synopsys as to the ownership of the '446 Patent and the '438 Patent.

128. Synopsys' false claims of ownership in the '446 Patent and the '438 Patent have harmed Magma and will continue to harm Magma until such time as Synopsys is enjoined from making such claims.

129. Pursuant to the Federal Declaratory Judgment Act, Magma requests the Court declare that Synopsys has no ownership right in either the '446 Patent or the

'438 Patent and that the Court further declare Magma the owner of all right, title and interest in and to the '446 Patent and the '438 Patent.

## SIXTH COUNTERCLAIM FOR RELIEF
## (NON-INFRINGEMENT OF THE '446 PATENT)

130. Magma incorporates by reference the allegations set forth in the previous paragraphs.

131. On September 17, 2002, the PTO issued to Magma the '446 Patent, entitled "Timing Closure Methodology," upon an application filed in the name of Lukas P. P. P. van Ginneken.

132. Synopsys claims to be the owner of the '446 Patent.

133. There exists an actual and justiciable controversy within the meaning of 28 U.S.C. §§ 2201 and 2202 between Magma and Synopsys with respect to the inventorship, ownership, validity, enforceability, and infringement of the '446 Patent and Magma's alleged liability for infringement thereof.

134. If Magma does not own the '446 Patent, Magma does not infringe, or contribute to or induce the infringement of, the '446 Patent.

## SEVENTH COUNTERCLAIM FOR RELIEF
## (IBM'S JOINT OWNERSHIP OF THE '446 PATENT)

135. Magma incorporates by reference the allegations set forth in the previous paragraphs.

136. On September 17, 2002, the PTO issued to Magma the '446 Patent, entitled "Timing Closure Methodology," upon an application filed in the name of Lukas P. P. P. van Ginneken.

137. Synopsys claims to be the owner of the '446 Patent.

138. There exists an actual and justiciable controversy within the meaning of 28 U.S.C. §§ 2201 and 2202 between Magma and Synopsys with respect to the inventorship, ownership, validity, enforceability, and infringement of the '446 Patent and Magma's alleged liability for infringement thereof.

139. If Magma does not exclusively own the '446 Patent, IBM is a joint owner of the '446 Patent.

## EIGHTH COUNTERCLAIM FOR RELIEF
## (NO LIABILITY FOR INFRINGEMENT
## OF THE '446 PATENT DUE TO LICENSE)

140. Magma incorporates by reference the allegations set forth in the previous paragraphs.

141. On September 17, 2002, the PTO issued to Magma the '446 Patent, entitled "Timing Closure Methodology," upon an application filed in the name of Lukas P. P. P. van Ginneken.

142. Synopsys claims to be the owner of the '446 Patent.

143. There exists an actual and justiciable controversy within the meaning of 28 U.S.C. §§ 2201 and 2202 between Magma and Synopsys with respect to the inventorship, ownership, validity, enforceability, and infringement of the '446 Patent and Magma's alleged liability for infringement thereof.

144. If Magma does not own '446 Patent, Magma cannot infringe the '446 Patent because Magma is licensed under the '446 Patent.

## NINTH COUNTERCLAIM FOR RELIEF
## (INVALIDITY OF THE '446 PATENT)

145. Magma incorporates by reference the allegations set forth in the previous paragraphs.

146. On September 17, 2002, the PTO issued to Magma the '446 Patent, entitled "Timing Closure Methodology," upon an application filed in the name of Lukas P. P. P. van Ginneken.

147. Synopsys claims to be the owner of the '446 Patent.

148. There exists an actual and justiciable controversy within the meaning of 28 U.S.C. §§ 2201 and 2202 between Magma and Synopsys with respect to the

inventorship, ownership, validity, enforceability, and infringement of the '446 Patent and Magma's alleged liability for infringement thereof.

149. If Magma does not own the '446 Patent, the '446 Patent is invalid because it fails to satisfy the conditions for patentability specified in Title 35 of the United States Code.

## TENTH COUNTERCLAIM FOR RELIEF
## (NON-INFRINGEMENT OF THE '438 PATENT)

150. Magma incorporates by reference the allegations set forth in the previous paragraphs.

151. On April 20, 2004, the PTO issued to Magma the '438 Patent, entitled "Timing Closure Methodology," upon an application filed in the name of Lukas P. P. P. van Ginneken.

152. Synopsys claims to be the owner of the '438 Patent.

153. There exists an actual and justiciable controversy within the meaning of 28 U.S.C. §§ 2201 and 2202 between Magma and Synopsys with respect to the inventorship, ownership, validity, enforceability, and infringement of the '438 Patent and Magma's alleged liability for infringement thereof.

154. If Magma does not own the '438 Patent, Magma does not infringe, or contribute to or induce the infringement of, the '438 Patent.

## ELEVENTH COUNTERCLAIM FOR RELIEF
## (IBM'S JOINT OWNERSHIP OF THE '438 PATENT)

155. Magma incorporates by reference the allegations set forth in the previous paragraphs.

156. On April 20, 2004, the PTO issued to Magma the '438 Patent, entitled "Timing Closure Methodology," upon an application filed in the name of Lukas P. P. P. van Ginneken.

157. Synopsys claims to be the owner of the '438 Patent.

1     158.   There exists an actual and justiciable controversy within the meaning

2 of 28 U.S.C. §§ 2201 and 2202 between Magma and Synopsys with respect to the

3 inventorship, ownership, validity, enforceability, and infringement of the '438 Patent and

4 Magma's alleged liability for infringement thereof.

5     159.   If Magma does not exclusively own the '438 Patent, IBM is a joint

6 owner of the '438 Patent.

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**TWELFTH COUNTERCLAIM FOR RELIEF**

**(NO LIABILITY FOR INFRINGEMENT**

**OF THE '438 PATENT DUE TO LICENSE)**

</div>

10     160.   Magma incorporates by reference the allegations set forth in the

11 previous paragraphs.

12     161.   On April 20, 2004, the PTO issued to Magma the '438 Patent,

13 entitled "Timing Closure Methodology," upon an application filed in the name of Lukas

14 P. P. P. van Ginneken.

15     162.   Synopsys claims to be the owner of the '438 Patent.

16     163.   There exists an actual and justiciable controversy within the meaning

17 of 28 U.S.C. §§ 2201 and 2202 between Magma and Synopsys with respect to the

18 inventorship, ownership, validity, enforceability, and infringement of the '438 Patent and

19 Magma's alleged liability for infringement thereof.

20     164.   If Magma does not own the '438 Patent, Magma cannot be liable for

21 infringing the '438 Patent because Magma is licensed under the '438 Patent.

<div align="center">

**THIRTEENTH COUNTERCLAIM FOR RELIEF**

**(INVALIDITY OF THE '438 PATENT)**

</div>

24     165.   Magma incorporates by reference the allegations set forth in the

25 previous paragraphs.

26     166.   On April 20, 2004, the PTO issued to Magma the '438 Patent,

27 entitled "Timing Closure Methodology," upon an application filed in the name of Lukas

28 P. P. P. van Ginneken.

167. Synopsys claims to be the owner of the '438 Patent.

168. There exists an actual and justiciable controversy within the meaning of 28 U.S.C. §§ 2201 and 2202 between Magma and Synopsys with respect to the inventorship, ownership, validity, enforceability, and infringement of the '438 Patent and Magma's alleged liability for infringement thereof.

169. If Magma does not own the '438 Patent, the '438 Patent is invalid because it fails to satisfy the conditions for patentability specified in Title 35 of the United States Code.

## FOURTEENTH COUNTERCLAIM FOR RELIEF

## (UNFAIR COMPETITION IN VIOLATION OF

## CAL. BUS. & PROF. CODE § 17200 *ET SEQ.*)

170. Magma incorporates by reference the allegations set forth in the previous paragraphs.

171. By reason of the foregoing, Synopsys has been, and is, engaged in "unlawful, unfair or fraudulent business practices" in violation of California Business and Professions Code §§ 17200 *et seq.*, and in acts of unfair competition in violation of the common law.

172. Synopsys' acts complained of herein have damaged and will continue to damage Magma irreparably. Magma has no adequate remedy at law for such wrongs and injuries. The damage to Magma includes harm to its goodwill and reputation that money cannot compensate. Magma is therefore entitled to preliminary and permanent injunctions restraining and enjoining Synopsys and its agents, servants, employees, representatives, successors and assigns, and those acting in concert with them or on their behalf, from making false and misleading statements that Synopsys owns the Magma Patents and that Magma infringes the '114 Patent and the Magma Patents.

# PRAYER FOR RELIEF

WHEREFORE, Defendant and Counterclaimant Magma prays:

(1)     that the Court dismiss with prejudice the Complaint of plaintiff Synopsys, that Synopsys take nothing by reason of the Complaint, and that judgment be rendered in favor of Magma;

(2)     that the Court render judgment declaring that Magma has not infringed and is not infringing the '114 Patent;

(3)     that the Court render judgment declaring that IBM is a joint owner of the '114 Patent;

(4)     that the Court render judgment declaring that Magma cannot be liable for infringing the '114 Patent because Magma is licensed under the '114 Patent;

(5)     that the Court render judgment declaring that the '114 Patent is invalid;

(6)     that the Court render judgment declaring that Synopsys has no ownership interest whatsoever in the '446 Patent or in the '438 Patent;

(7)     that the Court render judgment re-affirming and declaring that Magma is the owner of all right, title and interest in and to the '446 and '438 Patents;

(8)     that Synopsys, its agents, servants, employees, representatives, successors and assigns, and those acting in privity or in concert with them or on their behalf, be preliminarily and permanently enjoined from claiming or otherwise stating that (a) Synopsys is the owner, in whole or in part, of the '446 or '438 Patents, or any inventions claimed therein, or (b) Magma infringes the '114 Patent, the '446 Patent, or the '438 Patent;

(9)     that if Magma does not own the '446 Patent, the Court render judgment declaring that Magma has not infringed and is not infringing the '446 Patent;

(10)     that if Magma does not exclusively own the '446 Patent, the Court render judgment declaring that IBM is a joint owner of the '446 Patent;

1         (11)   that if Magma does not own the '446 Patent, the Court render

2   judgment declaring that Magma cannot be liable for infringing the '446 Patent because

3   Magma is licensed under the '446 Patent;

4         (12)   that if Magma does not own the '446 Patent, the Court render

5   judgment declaring that the '446 Patent is invalid;

6         (13)   that if Magma does not own the '438 Patent, the Court render

7   judgment declaring that Magma has not infringed and is not infringing the '438 Patent;

8         (14)   that if Magma does not exclusively own the '438 Patent, the Court

9   render judgment declaring that IBM is a joint owner of the '438 Patent;

10        (15)   that if Magma does not own the '438 Patent, the Court render

11  judgment declaring that Magma cannot be liable for infringing the '438 Patent because

12  Magma is licensed under the '438 Patent;

13        (16)   that if Magma does not own the '438 Patent, the Court render

14  judgment declaring that the '438 Patent is invalid;

15        (17)   that the Court render judgment declaring this to be an exceptional

16  case under 35 U.S.C. § 285;

17        (18)   that Magma be awarded its attorneys' fees and costs; and

18        (19)   that Magma be awarded such other and further relief as the Court

19  deems proper.

20  Dated: October 21, 2004

21                                        GEORGE A. RILEY
                                      CHRISTOPHER D. CATALANO

22                                        RYAN K. YAGURA
                                      LUANN L. SIMMONS

23                                        O'MELVENY & MYERS LLP

24

25                                  By   /s/ George A. Riley
                                        George A. Riley

26                                        Attorneys for Defendant and

27                                        Counterclaimant MAGMA DESIGN
                                      AUTOMATION, INC.

28

## DEMAND FOR JURY TRIAL

Pursuant to Rule 38 of the Federal Rules of Civil Procedure, defendant and counterclaimant Magma Design Automation, Inc. hereby demands a trial by jury of all issues.

Dated: October 21, 2004

GEORGE A. RILEY
RYAN K. YAGURA
CHRISTOPHER D. CATALANO
LUANN L. SIMMONS
O'MELVENY & MYERS LLP


By /s/ George A. Riley
      George A. Riley

Attorneys for Defendant and
Counterclaimant MAGMA DESIGN
AUTOMATION, INC.

MAGMA'S ANSWER TO COMPLAINT
AND COUNTERCLAIMS
Case No. C04-03923 MMC

# CERTIFICATION OF INTERESTED ENTITIES OR PERSONS

Pursuant to Civil L.R. 3-16, the undersigned certifies that the following listed persons, associations of persons, firms, partnerships, corporations (including parent corporations) or other entities (i) have a financial interest in the subject matter in controversy or in a party to the proceeding, or (ii) have a non-financial interest in that subject matter or in a party that could be substantially affected by the outcome of the proceeding:

IBM's contract or property rights may be affected by the outcome of this proceeding.

Dated: October 21, 2004

GEORGE A. RILEY
RYAN K. YAGURA
CHRISTOPHER D. CATALANO
LUANN L. SIMMONS
O'MELVENY & MYERS LLP


By   /s/ George A. Riley
          George A. Riley

Attorneys for Defendant and
Counterclaimant MAGMA DESIGN
AUTOMATION, INC.

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